

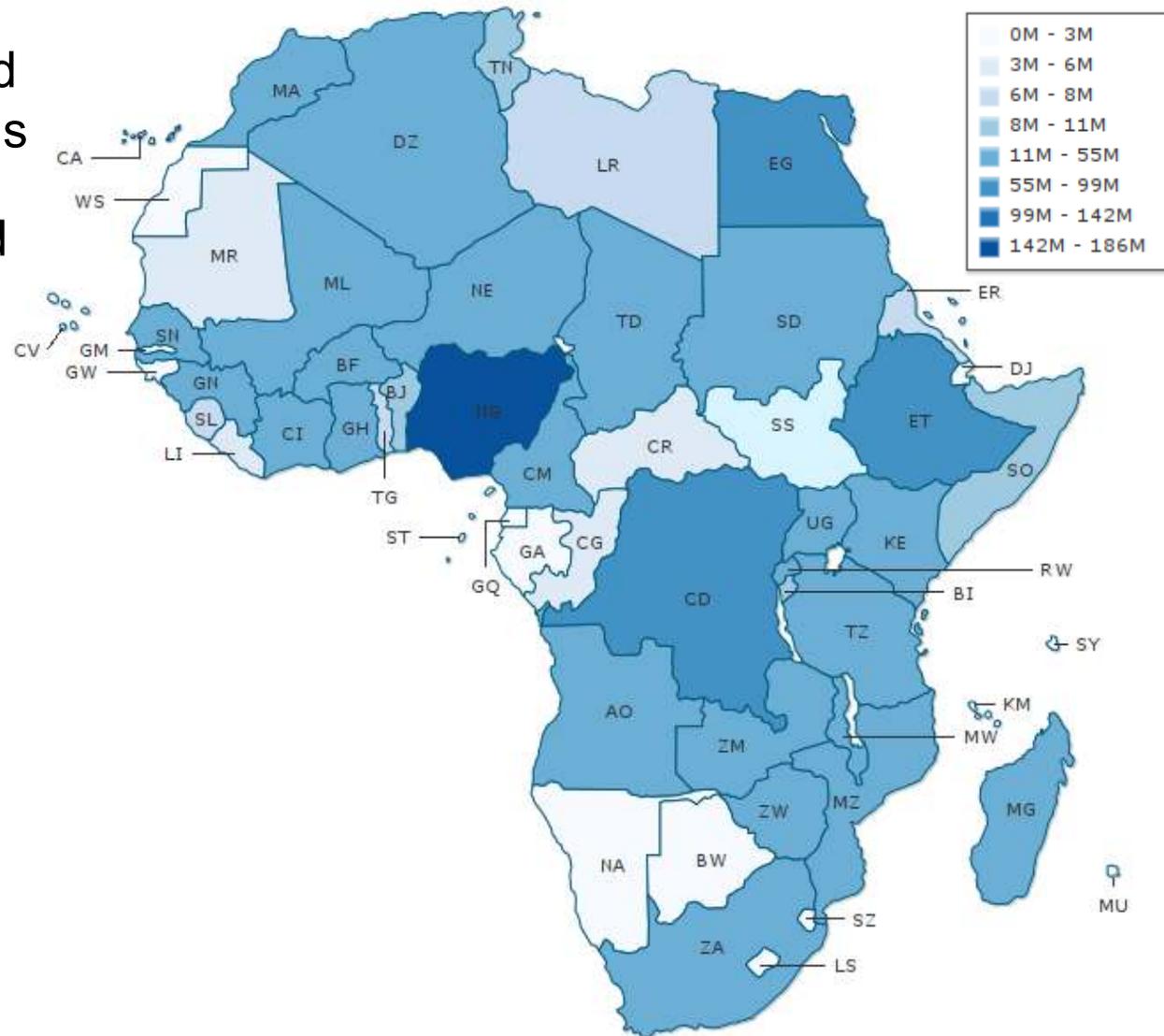


# African Domain Name System Market Study 2016



# Background and Scope

- 54 African countries, including 6 Indian and Atlantic Ocean Islands
- Identify strengths and weaknesses in the industry ecosystem within the region
- Develop recommendations on how to advance the industry
- Explore options for establishing a DNS observatory



# Meet the Team



- Highly qualified team of experts, possessing over 70 years of experience in the domain name market industry in Africa



- The team has worked throughout the African continent providing research-based in-depth analysis and recommendations on a number of Information Communication Technology (ICT) based projects



- Multilingual and includes members based in Southern and West Africa



# Methodology

## Online Survey:

- **4 Languages (English, French, Portuguese and Arabic)**
- **6 Different questionnaires:**
  - Registry
  - Registrant
  - Registrar
  - Reseller
  - Regulator
  - IXP Manager

# Methodology 2

- **Zone File Analysis**
  - ccTLD and gTLD zone file analysis
  - Significant websites identified
  - Web site hosting location analysed
  - Web site language identified
  - No WHOIS lookups were required
  
- **Interviews**
  - ICT representatives and key role players

# Methodology 3

- **Desktop research**
  - Regional ecosystem, key measures from respected publications
    - Population, income, literacy, cost to communicate
  - Premium domain names
  - Payment gateways
  - ccTLD processes
  - Registrars – local and international
  - Pricing
  - Infrastructure

# Methodology – Quantitative Analysis

- **Record metrics for each ccTLD & gTLD domain**
  - Website location, language, IPv6, DNSSEC
- **Create regional subset**
  - Websites hosted in-country, in Africa and overseas
  - Analysis by region
  - Analysis by language

# FINDINGS

# Understanding Africa's Internet Ecosystem

- A very diverse region
  - Income, literacy, language, culture, development, infrastructure, all vary widely
- Lagging in Internet access
  - Africa: 28.9% average, rest of world 54.2%
  - 1% to 60% penetration by country
- High cost of internet access
  - For only 500 MB of monthly data the average African pays 15% of income versus 1% for the average European
- Few local hosting facilities

Result: low demand for domain names <sup>9</sup>

# Understanding the Region's Internet Ecosystem

## “Africa Rising”

- Internet penetration increased from 11% to 29% in 5 years
- Smartphones doubled to 226 million over the last 2 years
- More than 2/3 of African countries had 10 or more years of uninterrupted growth this century
- Amongst the fastest growing economies
- 314 Innovation Hubs in 42 African countries
- 80 Tbps of international submarine capacity operational

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# Understanding the Region's Internet Ecosystem

- **Backbone fibre networks**
  - All coastal countries except Guinea Bissau & Eritrea have submarine fibre, landlocked countries have access to fibre
  - Over 1 million km terrestrial fibre – almost all countries will be connected to their neighbours by fibre by 2018
- **Local Access**
  - Some FTTx, and Wi-Fi, but the majority use mobile access which is very expensive in most parts of Africa
- **IXPs and data centres**
  - 36 fully operational IXPs in 26 countries
- **IP Resources**
  - 2% of IPv4 and 1% of IPv6 out of the total global usage

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# Understanding the Region's Internet Ecosystem

- Policy, Regulation and Governance
  - Separation of Policy Maker, Regulator & Registry is very important
  - Recognise and engage with ISP Associations
  - Trend of switching off the Internet during elections and unrest is against human rights and costly to the economy
- Content
  - 75% of 400 million indexed pages are in 7 African countries
- E-commerce and e-government
  - Key drivers for Internet and DNS adoption

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# African DNS Market

- Registries
  - 51 functioning ccTLDs
- Registrar Market
  - 26 countries have only one Registrar: usually the Registry
  - 13 countries have a fully competitive Registrar market
- Registrant Market
  - Over 4.5 million African domains (ccTLD & gTLD)
  - 4 domains / 1000 population
  - Value of \$45 million p.a.

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# Key Success Factors:

- 1) Infrastructure to facilitate affordable access to the Internet
- 2) Digital Awareness with sufficient literacy
- 3) Conducive Policy, Regulatory and Governance Framework
- 4) Payment Gateways to ensure easy payment of fees
- 5) Price
- 6) Ease of Registration
- 7) Confidence & Critical Mass

# CONCLUSIONS AND RECOMMENDATIONS

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# Conclusions

- Highly diverse region – with much poverty and instability
- African DNS Market very small @ 4 domains / 1000 people, compare with >100 elsewhere
- But the market is growing fast in some places
- Far too many hindrances to growth
- Need to simplify, automate and expedite domain registration processes
- Some need to lower the cost of ccTLD registration
  - Average cost is \$84 compared to \$10 for a .COM domain
  - The countries with the highest revenue have the lowest (non zero) prices.
- Some countries have got it right

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## Recommendations: Wider Environment

- Internet access issues must be addressed
  - Cost, Availability & Performance
- Policies and investment to support e-commerce
- Countries without local hosting need to build
  - IXPs, data centres and fibre networks and ensure that network operators are prepared to peer
  - Cross-border fibre is vital to all
- Government to offer range of services online
- Ensure freedom of expression online as it encourages content creation and acts as an industry driver

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## Recommendations: Domain Name Market 1

- Low (but not zero) fees for registering a domain
- Rules which do not require domain registrants to have a legal presence in the country
- Rules which do not require domain names to match the business or personal name
- Functioning and easy to use registry landing pages
- Automatic procedures for registration **fulfilment** and **payment**, usually using EPP and an online payment gateway

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## Recommendations: Domain Name Market 2

- An effective business model and marketing / consumer awareness strategy
- Appropriate regulatory and governance mechanisms
- Use the 3R Model
  - Registry, Registrar and Registrant
- A sufficient number of Registrars - at least 20 – to ensure adequate competition
- A simple, quick and cheap dispute resolution system – commonly called an ‘Alternative Dispute Resolution’ (ADR) system

## Setting up a DNS observatory in Africa

The Report recommends that a DNS Observatory be established to track changes in the use of the DNS system in Africa using the following approach:

- Augment the online questionnaire tool with a data collection server that allows ccTLD zone managers to configure automated Zone Transfers to the collector.
- Periodically analyse zones according to requirements.
- Data collection would require very little maintenance while automatically generating up-to-date data, graphs and tables showing the development of domain names on the continent.
- Augmented by periodic surveys making use of the online questionnaire platform.
- Would require ccTLD Registry buy-in
- Would offer AnyCast Secondaries to participating ccTLDs

**Thank you**

**Mercie**

**Obrigado**

**شكرا**

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